



## ATTACHMENT B

### Amendments to the Claims

*This listing of claims will replace all prior versions, and listings, of claims in the application.*

1. (Currently Amended) A reconfigurable control systeminstrument panel for a vehicle, said panel comprising:  
~~a rear projection~~a vehicle instrument panel display including a projector and a rear projection display screen;  
a plurality of physical control details mounted ~~to~~in front of said screen;  
an electro-optical sensing system located behind said screen to sense the positionpositions of said plurality of control details; and  
a computer, connected to said electro-optical sensing means, to control said projector and determine from ~~said sensed~~the physical control detail positions ~~the desired~~sensed by the electro-optical sensing means, inputs to said control at least function of the vehicle system.
2. (Original) Apparatus according to claim 1 wherein said computer controls said display as a result of said sensed position, stored data, or an external source.
3. (Original) Apparatus according to claim 1 wherein said computer controls said display as a result of data inputted to said computer from an external source.
4. (Original) Apparatus according to claim 1 wherein said electro-optical sensing system is comprised by a TV camera.

5. (Original) Apparatus according to claim 1 wherein said electro-optical sensing system is comprised by an optical sensor incorporated into the projector.
6. (Original) Apparatus according to claim 1 wherein said computer additionally controls a desired function.
7. (Original) Apparatus according to claim 1 wherein at least one of said control details is a knob.
8. (Original) Apparatus according to claim 1 wherein absolute position of said control detail is determined.
9. (Original) Apparatus according to claim 1 including sensing of touch position on said screen.
10. (Original) Apparatus according to claim 9 wherein said touch sensing is also achieved electro-optically.
11. (Original) Apparatus according to claim 9 wherein said computer controls said display as a result of said sensed touch position.
12. (Original) Apparatus according to claim 1 wherein a datum on said physical control detail located on the users side of said screen is sensed.
13. (Original) Apparatus according to claim 1 wherein a datum is sensed on a member related to said physical control detail position is located on the projector side of said screen.

14. (Previously Presented) Apparatus according to claim 1 wherein force feedback is provided to the user as a result of said sensed control detail or touch position.

15. (Previously Presented) Apparatus according to claim 1 wherein force feedback is provided to the user as a result of data stored in computer memory or inputted from external sources.

16. (Original) Apparatus according to claim 1 wherein said screen incorporates at least one relief feature.

17. (Original) Apparatus according to claim 16 wherein said relief feature does not unduly disrupt images projected on said screen.

18. (Original) Apparatus according to claim 1 wherein said physical control detail is transparent.

19. (Original) Apparatus according to claim 1 wherein said physical control detail has a opening through which said screen may be viewed.

20. (Original) Apparatus according to claim 1 wherein at least one of said physical control details is a slider, switch or dial.

21. (Original) Apparatus according to claim 1 wherein said projection means is a flying spot scanning type.

22. (Original) Apparatus according to claim 1 wherein said projection means is a image modulating type such as DLP or LCOS.

23. (Original) Apparatus according to claim 1 wherein said screen incorporates two knobs spaced horizontally.

24. (Original) Apparatus according to claim 23 wherein displayed image on said screen corresponds to a radio configured around said two knobs, and said radio image is later reconfigured to another function.

25. (Currently Amended) A reconfigurable instrument panel for a vehicle, said panel comprising:

a vehicle instrument panel display having a screen;

at least one physical control detail mounted tolocated in front of said screen;

a touch sensing means for sensing xy touch position on at least a portion of said displayan electro-optical sensing means located behind said screen for sensing the position of said physical control detail; and

a computer connected to said electro-optical sensing means, to control said display, display and to determine at least one function of the vehicle based on the sensed position of said at least one physical control detail position and said touch position.

26. (Currently Amended) Apparatus according to claim 25 wherein said display is rear projection display further including a projector controlled by said computer to provide a rear projection display on said screen.

27. (Currently Amended) Apparatus according to claim 25 wherein the vehicle instrument panel comprises a center stack and wherein the screen of said display is located in the center stack of said vehicle and is of a size occupying a substantial portion of the center stack.

28. (Original) Apparatus according to claim 25 wherein said screen is curvilinear.
29. (Currently Amended) Apparatus according to claim 25 wherein said screen is of an irregular non-standard geometrical shape.
30. (Currently Amended) Apparatus according to claim 25 wherein said display ~~at least 10 x 9 inches in extent or has an area of at least ninety square inches~~.
31. (Original) Apparatus according to claim 25 wherein said display is located in the center stack of said vehicle and extends toward the steering wheel of said vehicle.
32. (Currently Amended) Apparatus according to Claim 25 wherein said display screen is ~~made of~~comprises a plastic screen.
33. (Original) Apparatus according to claim 25 wherein video images are displayed on an upper portion of said display so as to be easily seen by the driver of said vehicle.
34. (Canceled)
35. (Original) Apparatus according to claim 25 wherein said computer further controls a function of the vehicle.
36. (Currently Amended) Apparatus according to claim 25 wherein said screen is easily interchanged with a further screen.

37. (Original) Apparatus according to claim 25 wherein said screen incorporates relief features to aid operation by feel.
38. (Original) Apparatus according to claim 25 wherein said screen incorporates force feedback features controlled by said computer to aid operation of said physical control details by feel.
39. (Original) Apparatus according to claim 25 wherein said screen incorporates force feedback features controlled by said computer to aid operation of said touch position sensing by feel.
40. (Original) Apparatus according to claim 25 wherein displayed data is comprised of labels and other data relating to the function of one or more of said physical control details.
41. (Currently Amended) Apparatus according to claim 33 wherein a video image is provided on the screen which can be touched at a desired location to acknowledge or confirm data presented.
42. (Currently Amended) Apparatus according to claim 2559 wherein said the touch sensing is responsive to a gesture of a person using one or two fingers.
43. (Original) Apparatus according to claim 42 wherein said gesture is a sliding gesture.
44. (Original) Apparatus according to claim 42 wherein said gesture is a turning gesture.

45. (Currently Amended) Apparatus according to claim 125 wherein said computer is further used to process data from other electro-optical systems within the vehicle.

46. (Currently Amended) Apparatus according to claim 2559 wherein data to be acted on by touch is projected on said screen under control of said computer.

47-53. (Canceled)

54. Currently Amended) A method for controlling at least one function of a vehicle, said method a system comprising:

providing a rear projection display controlled by a computer;

providing, on a screen of said display a plurality of control details;

providing using an electrooptical electro-optical sensing means for sensing said plurality the position of at least one physical control details detail located in front of a screen of a reconfigurable instrument panel display for the vehicle, wherein the electro-optical sensing means is located behind the screen and said display is controlled by a computer;

using data from said sensing means, and said computer, determining to determine the position of the at least one of said physical control details detail; and

controlling said system as a result of said at least one function of the vehicle based on the sensed position.

55. (Canceled)

56. (New) Apparatus according to claim 25 including further means for sensing the location on said screen of a finger touch of a user and for changing at least one of (i) a vehicle function and (ii) information displayed by the display based on the sensed location.

57. (New) Apparatus according to claim 25 wherein said at least one control detail comprises a plurality of physical control details and said electro-optical sensor senses said plurality of physical control details.

58. (New) Apparatus according to claim 25 wherein at least a portion of said screen is non-flat.

59. (New) Apparatus according to claim 25 further comprising touch sensing means for sensing xy touch position of a finger of a user on at least a portion of said display.